

Insects and People

Entomology 101

An Insect's Eye View of the Course

"I suppose you are an entomologist?"

"Not quite as ambitious as that, sir. I should like to put my eyes on the individual entitled to that name. No man can be truly called an entomologist, sir; the subject is too vast for any single human intelligence to grasp."

Oliver Wendell Holmes, *The Poet at the Breakfast Table*.

- 1. Instructor**
- 2. Objectives of the Course**
- 2. Textbooks**
- 3. Grades**
- 4. Term Projects**

"*What sort of insects do you rejoice in, where you come from?*"
the Gnat inquired.

"*I don't rejoice in insects at all,*"
Alice explained.....

Lewis Carroll, *Through the Looking Glass*

Insects and People - Fall Semester 2007

Entomology 101 - Course Format

Instructor: Dr. Richard S. Zack room 157 FSHN 335-3394
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Web Address: <http://entomology.wsu.edu/courses/entom101.html>

Objectives:

1. To provide an introduction to insects as unique life forms and to foster an appreciation of their diversity, adaptations, value, and habits.
2. To develop an appreciation of insects as a dominant component of the earth's ecology.
3. To explore the historical and contemporary significance of insect/human interactions.
4. To provide students with an appreciation of the science of entomology and the significance of entomological research in their daily lives.

Presentations:

The course consists of three lectures per week and various in and out of class activities. Attendance at class periods is desirable, encouraged, and expected, as most course information is easily attained by attending class.

Textbooks:

O'Toole, Christopher (ed.). 2002. Firefly Encyclopedia of Insects and Spiders. Firefly Books, Buffalo, New York. 240 pp.

Borror, D.J. and R.E. White. 1970. A Field Guide to the Insects. Houghton Mifflin Co., Boston. 404 pp. (a newer version is available - any version will do).

Grading:

1. Tests

- A. Weekly Quizzes (25% of final grade)
 - Fifteen (15) multiple choice, fill-in and/or short answer weekly quizzes will be o
 - Thirteen (13) of the weekly quiz scores will count – two will be dropped. There will be no make-up quizzes. Please note that these quizzes are a very important part of your grade so, do not take them lightly.
- B. Midterm (16% of final grade)

- There will be one midterm exam as indicated on the course schedule. It will consist of multiple choices, fill in the blank, and short answer questions. An example of a midterm exam will be available on the course website.

C. Final Exam (16%)

- A final exam will be given during our scheduled time during finals week. The format for the exam will be the same as the midterm. It will only include material covered during last half of the course (since the midterm).

2. Journal (8% of final grade)

- The maintenance of a journal can be an interesting and educational endeavor. A good journal is produced over a period of time with entries made as the information is collected. In this course, you will be searching for (or allowing it to come to you) information on insects and related (entomological) topics.

Create a journal type of your choosing but it must be written. Entries in your journal should include:

1. the item (e.g., newspaper or tabloid story) or a description of the item (e.g., beer commercial, beetle found in salad at restaurant, etc.). Please try to include the original item or a copy whenever possible.
2. date of item or observation.
3. a short description or explanation and your thoughts on the subject.

- Your journal should include at least 20 items.

Examples:

- Newspaper article concerning West Nile Virus and its transmission by mosquitoes.
- Cleveland Plain Dealer; 12 October 2005
- West Nile Virus is a disease vectored by mosquitoes. The disease has been spreading throughout the United States after having been discovered in New York several years ago. Ten persons died in Louisiana this year after contracted the disease. Serious mosquito control programs have been initiated throughout Ohio to help manage the mosquitoes that vector the disease. At least 10 persons contracted the disease in Ohio this past summer.
- Budweiser beer commercial
- Seen on television while watching the Cougar vs. USC football game on??????
- Ants were ravaging the food of a group of very good looking and upscale (fake – made for TV) young persons who were having a picnic. The ants left the food when they found that there was a bottle of Bud that they wanted more. The ants carried the bottle of Bud back to their colony but were having a difficult time getting it down the hole.

3. Main Project (21% of final grade)

- see description and topics

4. Miscellaneous Assignments (14% of final grade)

To be assigned but will include:

1. grasshopper drawing
2. fly/detritovore rearing
3. hornworm rearing
4. children's book review assignment

6. Bonus Points

Bonus points will be offered throughout the semester. These bonus assignments are at the whim of the instructor but the instructor likes to give them. Take advantage of them.

Class Etiquette

Please turn off and do not use cell phones in class.

Please do not use your MP3 player in class

Please do not carry on conversations with other students during class

Please respect your fellow students and the instructor

Cheating

Cheating is the copying or plagiarizing of the work of another. Please do not cheat.

1. for the first offense the student will receive a "zero" for the test or assignment.
2. A second offense will result in the dropping of or the failure of the course.

Students with Disabilities

I am committed to providing assistance that will help all students be successful in this course and reasonable accommodations will be made for students with documented disabilities. Please feel free to visit the Disability Resource Center (DRC) during the first two weeks of the semester to seek information or to qualify for accommodations. All accommodations **MUST** be approved through the DRC, which is located in room 205 of the Administration Annex Bldg. Please call 509-335-3417 to make an appointment with a counselor.

Grades will be determined as follows:

90-100%	A
80-89%	B
70-79%	C
60-69%	D
Below 60 %	F

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Term Projects

All term projects must be pre-approved by the instructor. By the third Friday of the semester you are required to submit a title for your project along with the reason(s) you are pursuing this project, the contents of the project, how you plan to proceed, and any significant reference material. Your “pre-project” submission should be done by email to zack@wsu.edu. It does not have to be lengthy, but it should give me the impression that you have thought about the project. I do this with the hope that you will begin the project long before it is due! The instructor will return your submission with comments. This will serve as your approval to continue with the project. If you want to come and talk to the instructor about your project, please feel free to do so.

Purpose:

1. To broaden the individual's familiarity with insects beyond lecture material and assigned readings.
2. To encourage an in-depth exploration of some entomological topic.
3. To allow students to apply their individual talents to the exploration of entomology.

Type of Project:

1. Literature research paper. The finished paper, written and researched on an approved topic, should be typed, double-spaced, and between six and seven pages in length. It should contain a title page and a literature cited section in addition to the body of the text.
2. Write an original children's story or a science fiction thriller with insects as the main theme. The story should be based, as much as possible, on factual insect biology. It should be typed (or hand-written if it adds effect), double-spaced, and in the range of eight or more pages. Illustrations always make it more exciting!
3. Art. Create three (or more) original pieces of art that incorporate an insect theme. Graphic works should be matted and photographs showing the work in progress should accompany sculpted/carved works. A one page abstract, describing the thought behind the work(s) must accompany the project.
4. Bio-illustration. Draw three original views (dorsal, ventral, and lateral) of an actual insect in line or half-tone, pencil or ink, black and white or color. The illustrations must be accompanied by a short, typed report discussing the insect and its biology.

5. Insect collection. Collect and properly preserve 50 different kinds of arthropods. The specimens should be labeled and the collection should be accompanied by a log documenting the date, location, weather, habitat, etc. where the insects were collected.
6. Insects in music. Compose and perform an original piece of music based primarily on insect sounds or your view of insect sounds OR edit and submit a tape of musical works about insects.
7. Tabloid Critique. Collect five tabloid stories that concern insects or their near relatives (e.g., giant spiders, crabs, "worms," insect-like unknowns, etc.) and type a one to two page abstract of each article. Critique the article based on what you understand of "true" entomological fact.
8. Ento-Video. Produce an original videotape concerning some aspect of entomology. The video should be at least 20 minutes in length and the instructor must approve the topic.
9. Something original that I have not thought of!

Abstract:

All projects, regardless of type, must be introduced by a typed abstract of not more than two pages. Abstracts should be formatted to include:

1. Title of your project
2. Purpose of the project
3. What you did and how you did it
4. A short summary of the project content

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Sample Topics for Term Projects

An insect photo essay
Ants
Ants and fungal gardens
Aquatic insects
Bed bugs
Insects in Religion
Insect music
Insects in children's literature
Insects in fairy tales
Insects in poetry
Collecting insects
Douglas fir beetle
Insects and the law
Prehistoric insects
Insect slavery
Insect philately (insects on stamps)
Flea circuses
Entomophobia
Ethnoentomology
Insect camouflage
Insect architects
Insect fossils
Insects as food
Insect jewelry
Insects in mythology
Insects in the Aesop fables
Lyme disease
Locusts in history
Malaria
Plague
Egyptian scarabs
Silk industry
Insects in the movies
Insects and stored grains
Biological control by insects
Insecticides
Killer bees

Beekeeping
Alfalfa leafcutter bees
Mimicry
The value of insects to humans
Insects in the Bible
Pest Control
Termites
The black widow spider
The value of pollination by insects
How insects find flowers
DDT and biomagnification
Insect models for fly-fishing
The monarch butterfly
Insects on coins
Insects in art
Insects and Alice in Wonderland
Insects and plant galls
Rats, fleas, and the plague
Spanishfly
The truth about spiders
Royal jelly - medicinal?
Mayflies as bioindicators
Insects as medicines
Insects in Oriental culture
History of the honey bee
What do honey bees see?
The misunderstood louse
Arthropods as pets
Fire Ants
Insects on military patches
Army ants
The codling moth
Insects and tropical diseases
Jumping beans
Dragonflies
Biological control of weeds with insects